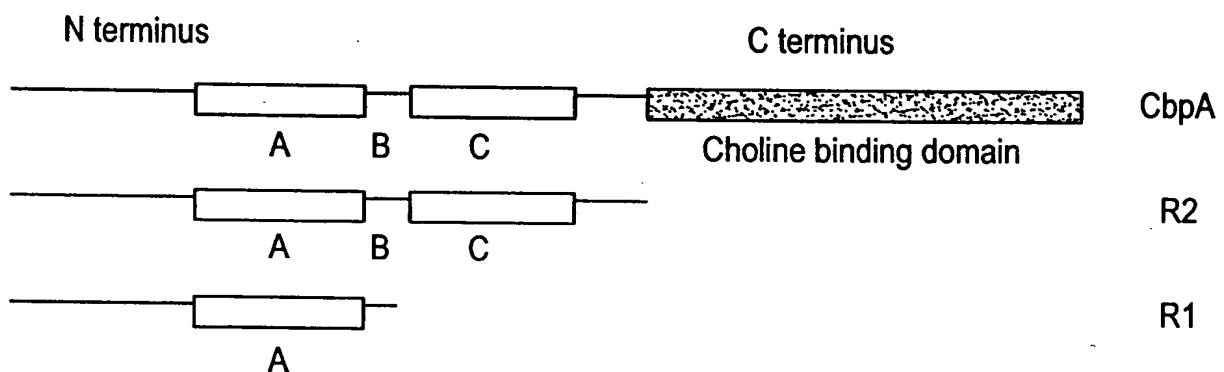




FIG. 1





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FIG. 2A-1

	- AVASLVMGSVVHATENEVTTQVATSSNRANESOTEHRKAAKQ -			- VDEYIKKML --- 0 --- L			
	10	20	30	40	50	60	
SPB328 (23F)	CbpA	-AVASLVMGSVVHATEKEVTTQVATSSNKANKSQTEHMKAAKQ-----			-VDEYIKKKL --- 0 --- L	53	
SPB365 (23F)	CbpA	-AVASLVMGSVVHATEKEVTTQVATSSNRANKSQTEHMKAAKQ-----			-VDEYIKKKL --- 0 --- L	53	
SPB105 (6B)	CbpA	VAVASLVMGSVVHATEKEVTTQVATSSNRANEQAAGRKAAEQF-----			-DEYIKTM -----	54	
SPSJ12 (19A)	CbpA	-AVASLVMGSVVHATENEGTTQAPTSSNRGNESQAEHMKAAKQ-----			-VDEYEKML -----	53	
SPB331 (14)	CbpA	-AVASLVMGSVVHATEKEVTTQVATSSNKANKSQTEHMKAAKQ-----			-VDEYIKKKL --- 0 --- L	52	
SPR332 (9v)	CbpA	CTVASLVMGSVVHATENERTTQVPTSSNRGK -- PERRKAAEOF-----			-DEYINKMI --- 0 --- L	51	
ATCC2	CbpA	trunc VAVASLVMGSVVHATEKEVTTQVPTYSNMAK -- TEHRKAAKQV-----			-VDEYEKMLREIQ---	55	
R6X (2)	CbpA	trun -----ENEGSTQATSSNMAK -- TEHRKAAKQV-----			-VDEYEKMLREIQ---	40	
SPSJ9 (14)	CbpA	t Y-1ASLFLGGVVHAE --- GVRSENNPTVTSSGQDISKKYADE-----			VKSHELKILSEIQTNL	54	
ATCC6B	CbpA	trun ---ASLFLGGVVHAE --- GVRSGNNSTVTSSGQDISKKYADE-----			-VESHLQSILKDYNKNL	52	
Ntype4	CbpA	trun CIVASLVMGSVVHATENEGATQVPTSSNRANESQAEGEOPKKLDSERDKARKEVEEYVKKIVGESYAKS	70				
ATCC4	CbpA	trunc -IVASLVMGSVVHATENEGATQVPTSSNRANESQAEGEOPKKLDSERDKARKEVEEYVKKIVGESYAKS	69				
	- DRKHTQVALNTKLSAIKTEYLNGLSVLEEKSEAELPSEIKA --- KLDAAFEQFKKDTL -----			- KLDAAFEQFKKDTL -----			
	80	90	100	110	120	130	140
SPB328 (23F)	CbpA	DRKHTQNVGLLTKLGVIKTEYLHGLSVSKKSEAEKPSEIKA --- KLDAAFEQFKKDTL -----					111
SPB365 (23F)	CbpA	DRKHTQNVGLLTKLGVIKTEYLHGLSVSKKSEAEKPSEIKA --- KLDAAFEQFKKDTL -----					111
SPB105 (6B)	CbpA	DRKHTQNFALNIKLSRIKTEYLRLKLNVLEEKSKAELPSETKK --- E1DAAFEQFKKDTNR -----					113
SPSJ12 (19A)	CbpA	DRRKHTQNVGLLTKLGAIKTEYLRLGSVSKESTAELPSEIKA --- KL TAAFKQFKKDTL -----					111
SPB331 (14)	CbpA	DRRKHTQNVGLLTKLGVIKTEYLHGLSVSKKSEAEKPSEIKA --- KLDAAFEQFKKDTL -----					110
SPR332 (9v)	CbpA	DRRKHTQNLAFNQLSRIKTEYLNGL -- KEKSEAEKPSSKIKA --- ELDAAFKQFKKDTL -----					106
ATCC2	CbpA	trunc DRRKHTQNFANMQLSAIKTEYLGLK -- EKSEAEKPSEVKA --- KLDAAFEQFKKDTL -----					110
R6X (2)	CbpA	trun DRRKHTQVALNIKLSAIKTKYRELNVLEEKSKOELPSEIKA --- KLDAAFEQFKKDTL -----					98
SPSJ9 (14)	CbpA	t DRSKHITKVNLINKQD1KRTYLYELNLEDKSKAELPSKIKA --- ELDAAFEQFKKDTL -----					112
ATCC6B	CbpA	trun KKQHTQNADEFNKKLSKIKTKYLYELNVEEKSEAELTSKTKETKEELTAAFEQFKKDTL -----					113
Ntype4	CbpA	trun TKKRHTITVVALVNELLNNIKNEYLN -- KIVESTSESQALIMMESRSKVDSEASKEFDSSSSSSDSSTK	138				
ATCC4	CbpA	trunc TKKRHTITVVALVNELLNNIKNEYLN -- KIVESTSESQALIMMESRSKVDSEASKEFDSSSSSSDSSTK	137				



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FIG. 2A-2



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FIG. 2B-1



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FIG. 2B-2

EEDRRNYPNTNTYKTL
LE1AESDVEVKKAELVKEEAKESRNEEKVKQAKAEVESKKAEATRLEKIKTD

360	370	380	390	400	410	420
-----	-----	-----	-----	-----	-----	-----

SPB328 (23F) Cbpa EEDRRNYPNTNTYKTL
 SPB365 (23F) Cbpa EEDRRNYPNTNTYKTL
 SPB105 (6B) Cbpa EEDRRNYPNTNTYKTL
 SP SJ12 (19A) Cbpa EEDRRNYPNTNTYKTL
 SPB331 (14) Cbpa EEDRRNYPNTNTYKTL
 SPR332 (9V) Cbpa EEDRRNYPNTNTYKTL
 ATCC2 Cbpa trunc EEDRRNYPNTNTYKTL
 R6X(2) Cbpa trunc EEDRRNYPNTNTYKTL
 SP SJ9 (14) Cbpa t EEDRRNYPNTNTYKTL
 ATCC6B Cbpa trunc EEDRRNYPNTNTYKTL
 Ntype4 Cbpa trunc EEDRRNYPNTNTYKTL
 ATCC4 Cbpa trunc EEDRRNYPNTNTYKTL

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 363
 370
 398
 397

RKKAAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPAEEEPENPAPAP-PKPENPAEQPKAEEKPADQQA

430	440	450	460	470	480	490
-----	-----	-----	-----	-----	-----	-----

SPB328 (23F) Cbpa RKKAAEEAKRRAAEEDKVKEKPAEQPQAPAPQPEKPTEEEPENPAPAP-KPENPAEQPKAEEKPADQQA 437
 SPB365 (23F) Cbpa RKKAAEEAKRRAAEEDKVKEKPAEQPQAPAPQPEKPTEEEPENPAPAP-KPENPAEQPKAEEKPADQQA 437
 SPB105 (6B) Cbpa RKKAAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPA--KPEKPAEQPKAEEKPADQQA 437
 SP SJ12 (19A) Cbpa RKKAAEE-AKRKAEE-EAKRKAEEAKRRAAEEDKVKEKPAEQPQAPAPQPEKPA--P-KPENPAEQPKAEEKPADQQA 419
 SPB331 (14) Cbpa RKKAAEEAKRRAAEEDKVKEKPAEQPQAPAPQPEKPTEEEPENPAPAP-KPENPAEQPKAEEKPADQQA 436
 SPR332 (9V) Cbpa RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPAEEEPENPVPA--KPENPAEQPKAEEKPADQQA 432
 ATCC2 Cbpa trunc RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPAEEEPENPVPA--PKPEKPAEQPKAEEKPADQQA 425
 R6X(2) Cbpa trunc RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPAATQPEK-----A--PKPEKPAEQPKAEEKPADQQA 411
 SP SJ9 (14) Cbpa t RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPAAP-KPENPAEQPKAEEKPADQQA 423
 ATCC6B Cbpa trunc RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPEKPAKPEKPA--PKPENPAEQPKAEEKPADQQA 437
 Ntype4 Cbpa trunc RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPQPAKPA-----PAPKPNPAEQPKAEEKPADQQA 458
 ATCC4 Cbpa trunc RKKAAEE-AKRKAEE-AKRKAEEEDKVKEKPAEQPQAPAPKTEKPA-----PAPKPNPAEQPKAEEKPADQQA 457



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FIG. 2B-3

EE

SPB328 (23F) CbpA EE
SPB365 (23F) CbpA
SPB105 (6B) CbpA EE
SPSJ12 (19A) CbpA
SPB331 (14) CbpA E
SPR332 (9V) CbpA E
ATCC2 CbpA trunc EE
R6X (2) CbpA trunc EE
SPSJ9 (14) CbpA t EE
ATCC6B CbpA trunc EE
Ntype4 CbpA trunc EE
ATCC4 CbpA trunc EE



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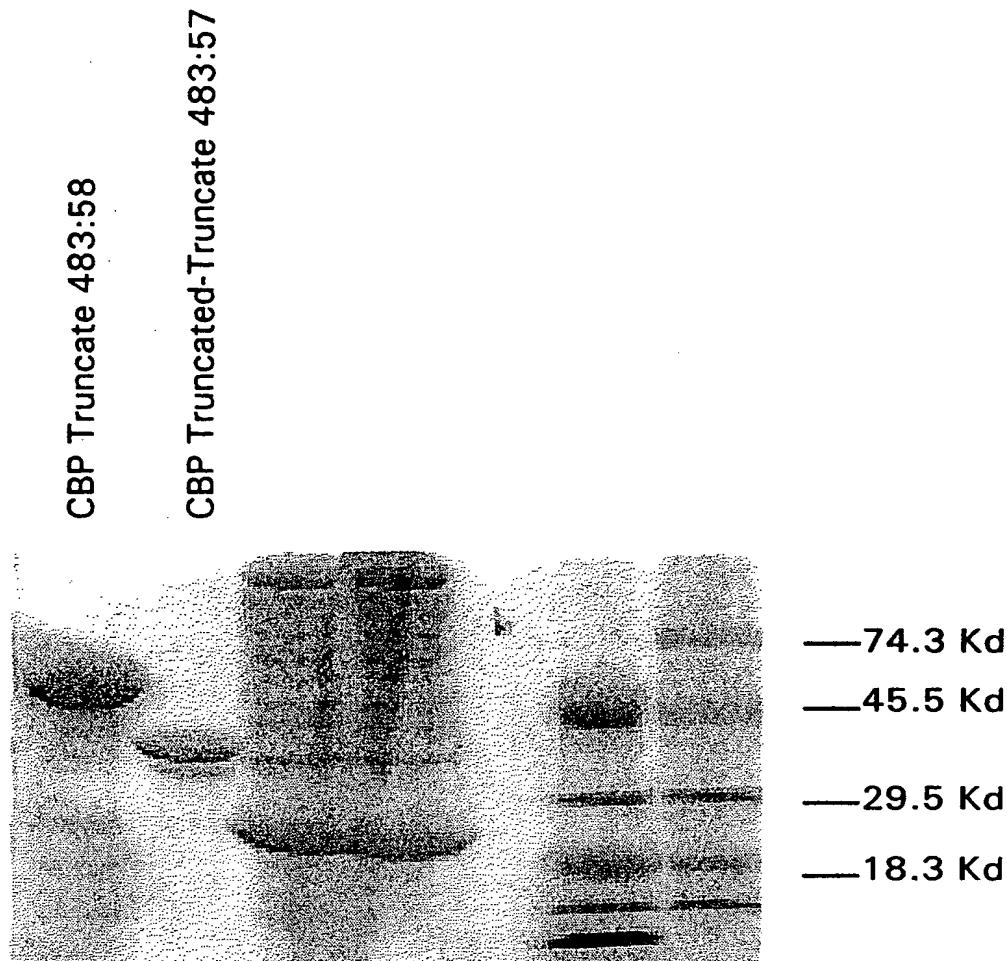


FIG. 3



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FIG. 4

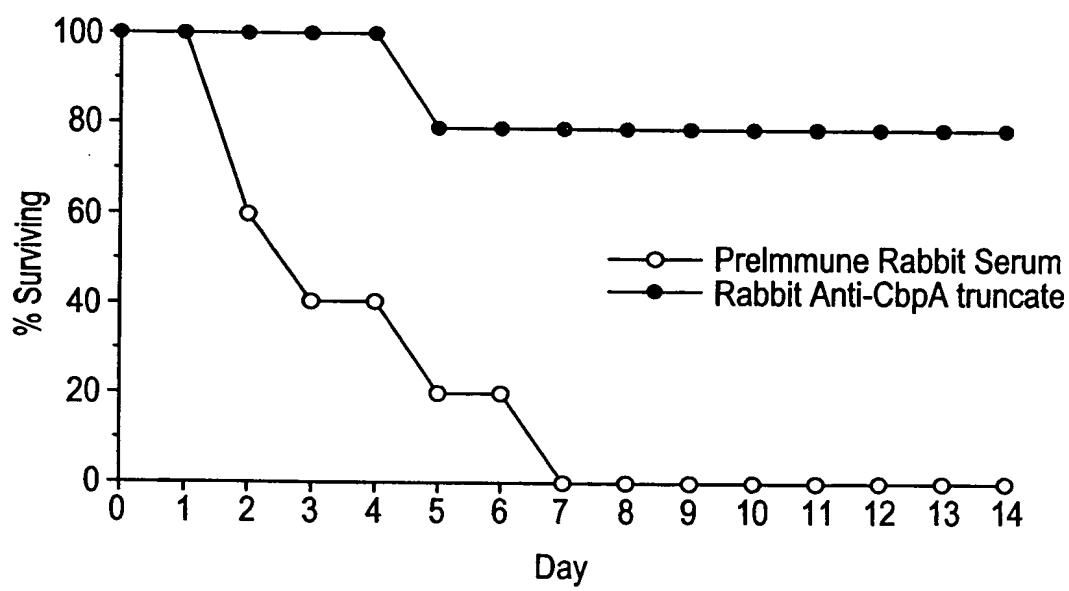
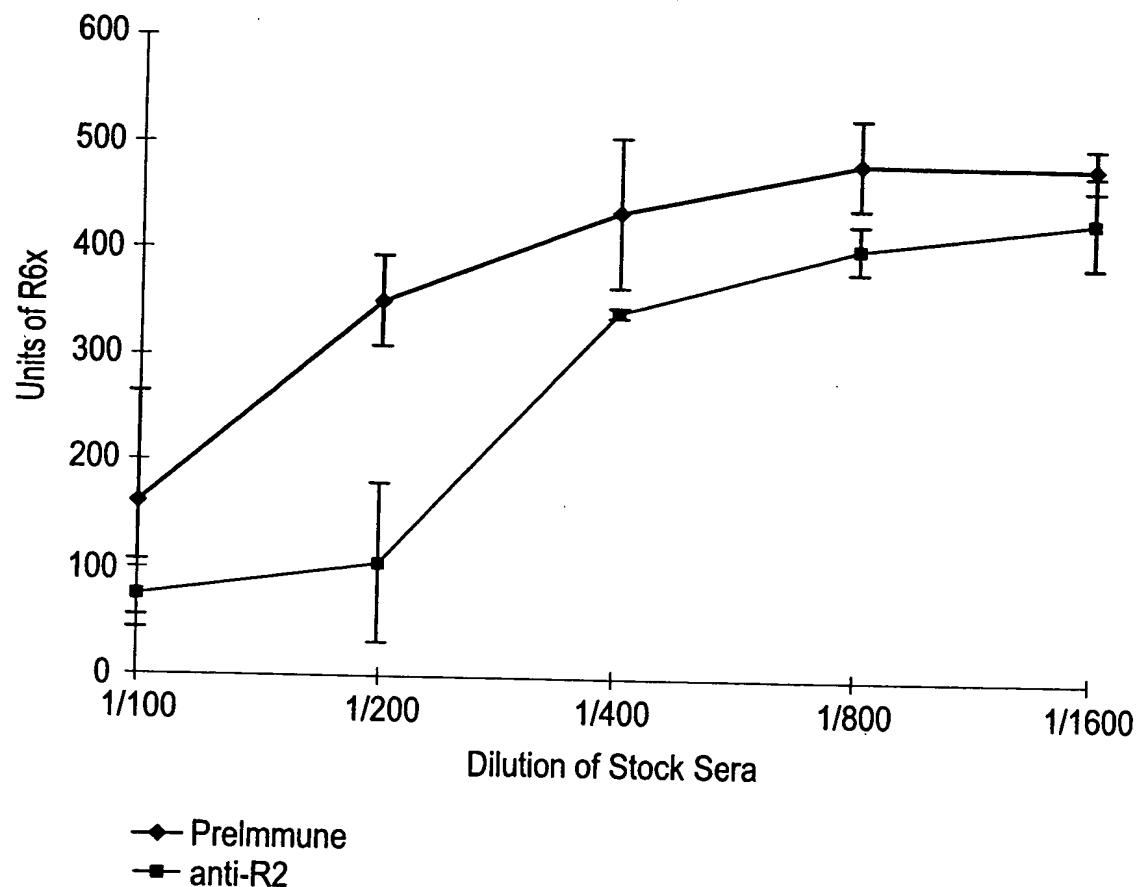




FIG. 5

Titration of anti-R2 antibody on R6x adhering to LNnT-HSA coated plates



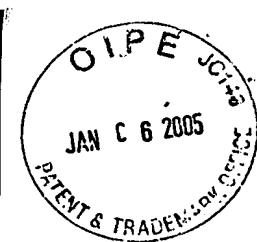
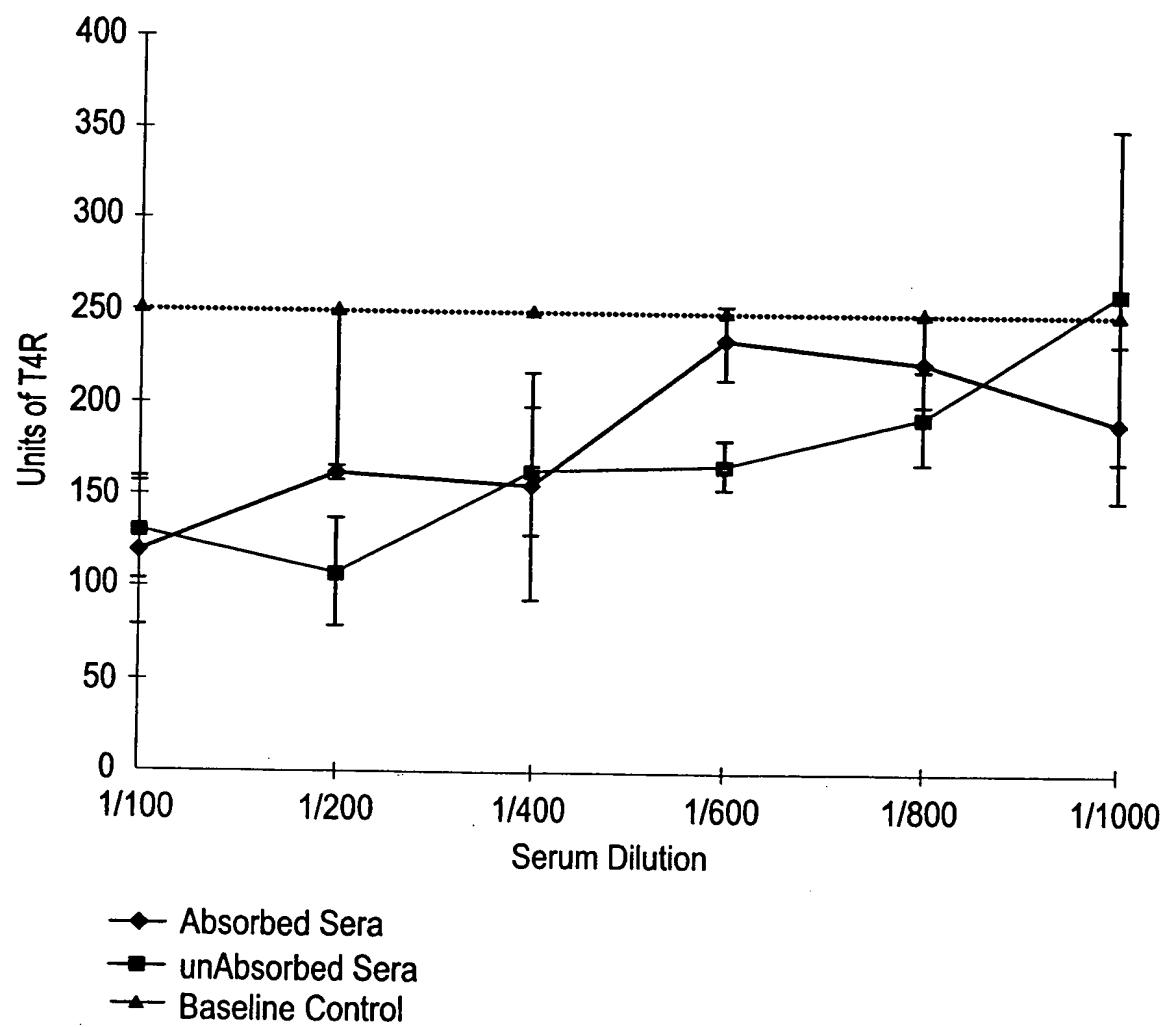


FIG. 6

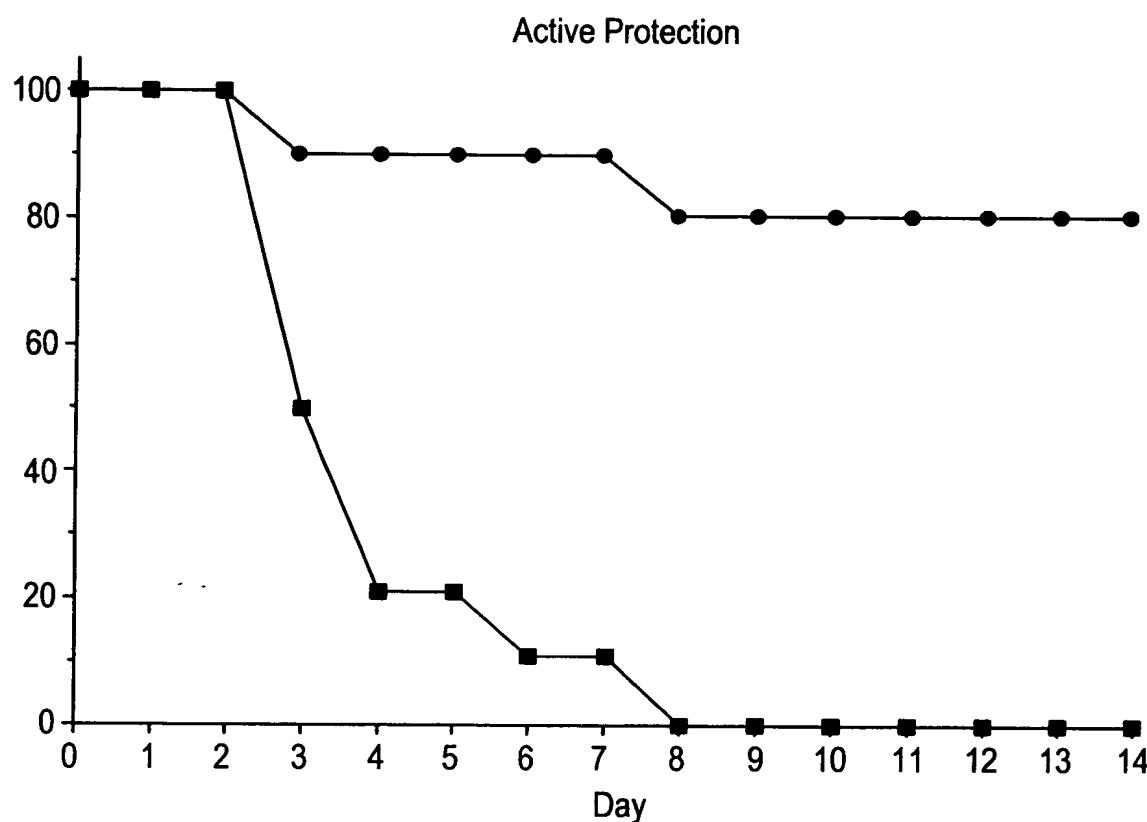
T4R Pretreated with anti-CbpA Antibody Prior to Adhesion to LNnT-HSA Coated Plates





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FIG. 7



EPT: 4,096,000

Challenge: 560 cfu serotype 6B

n=10

- Sham
- CbpA truncate NR1X